

DSi SERIES

DSi 4000

Architectural & Engineering Specifications

DSi 4000

The Crown® DSi 4000 power amplifier shall be a solid-state two-channel model with a switch-mode universal power supply. A rear-panel HD-15 connector shall provide input/output connectivity between the DSi amplifier and the DSi-8M System Monitor. The DSi 4000 shall be THX® approved.

The outputs shall be usable as stereo or bridged-mono modes of operation. The bridged-mono mode shall bridge the outputs to provide increased output voltage.

Front panel controls and indicators shall include the following:

Level: Detented rotary level control, one per channel.

Power Switch: On/off switch applies AC power to the amplifier.

Sel/Prev/Next Buttons: Three buttons near the LCD screen shall be used to access menu items and front panel lockout.

LCD Screen: Backlit liquid crystal display shows speaker presets and signal processing.

Signal Indicator: Green LED, one per channel, illuminates when a very low-level signal is present at input.

-10 Indicator: Green LED flashes when output signal exceeds -10 dB below clip.

-20 Indicator: Green LED flashes when output signal level exceeds -20 dB below clip.

Ready Indicator: Green LED, one per channel, illuminates when the amplifier is ready to produce audio.

Clip Indicator: Red LED, one per channel, turns on at the threshold of audible distortion.

Temp Indicator: Red LED, one per channel, illuminates under excessive temperature conditions.

Power Indicator: Blue LED illuminates when the amplifier has been turned on and has power.

Rear panel controls and connectors shall include the following:

AC Line Connector: NEMA 5-15P (15A).

Input Connector: Two 3-pin removable Phoenix-type connectors each accept a balanced line-level input signal.

Output Connectors: 4-position barrier strip with connectors for dual loudspeakers or bridge-mono loudspeaker.

HiQnet USB Connector: Type B, connects to a HiQnet network.

HD-15 Connector: For cinema I/O compatibility with DSi-8M System Monitor.

The amplifier shall have the following specifications:

Output Power: 2 ohm Stereo (per channel): 1,450W with 1% THD, 4 ohm Stereo (per channel): 1,200W with 0.5% THD, 8 ohm Stereo (per channel): 650W with 0.5% THD, 4 ohm Bridge-Mono: 3,000W with 1% THD, 8 ohm Bridge-Mono: 2,400W with 0.5% THD.

Voltage Gain at 1kHz: 34.2 dB.

Frequency Response: +0/-1 dB from 20 Hz to 20 kHz at 1 watt into 4 ohms.

Load Impedance: Safe with all types of loads. Rated for 2 to 8 ohms in Stereo mode, 4 to 16 ohms in Bridge-Mono mode.

Sensitivity at 8 ohm rated output: 1.4V.

Sensitivity at 4 ohm rated output: 1.3V.

Sensitivity at 2 ohm rated output: 1.0V.

Signal to Noise Ratio (below rated 8-ohm power at 1 kHz): 105 dB (A weighted).

Damping Factor: Better than 500 from 20 Hz to 500 Hz.

Crosstalk: > 70 dB below rated power, 20 Hz to 1 kHz, A-weighted.

Input Stage: Input is electronically balanced and employs precision 1% resistors.

Input Impedance (nominal): 20 k ohms, balanced; 10 k ohms, unbalanced.

AC Line Voltage and Frequency Configurations Available: 100V, 120V, 220-240V, 50/60 Hz.

AC Line Current: 11.75A.

At Idle: Draws no more than 45 watts.

Operating Temperature: 0° C to 40° C at 95% relative humidity (non-condensing).

The DSP section shall have the following specifications:

Input EQ: 6 parametric filters per channel with adjustable Q, ±15 dB boost/cut. Also adjustable high and low shelving filters. This 8-filter EQ section can be bypassed.

Crossover Filters: Highpass and lowpass per channel. Butterworth 6/12/18/24 dB per octave, Linkwitz-Riley 24/48 dB per octave. Also includes ±15 dB band-pass gain and polarity control.

Output EQ: 8 parametric filters per channel with adjustable Q, ±15 dB boost/cut. This 8-filter EQ section can NOT be bypassed. Filters are enabled individually.

Output Limiter: Prevents clipping and protects loudspeakers. Choice of -3, -6, or -12 dB threshold per channel.

Delay: Up to 50 msec total delay per channel.

Presets: 20 presets. One is "DSP OFF." Fifteen are factory-set for JBL Cinema systems. Four are user-definable.

Protection shall include the following:

DSi-Series amplifiers shall be protected against shorted, open or mismatched loads; overloaded power supplies; excessive temperature; chain destruction phenomena; excessive output current, and input overload damage. They also protect loudspeakers from input/output DC, large or dangerous DC offsets and turn-on/turn-off transients

The chassis shall be steel. Cooling shall be by a proportional speed fan with front-to-rear airflow.

Dimensions shall be EIA Standard 19-in. rack mount width (EIA RS-310-B), 3.5 in. (8.9 cm) high and 12.25 in. (31.11 cm) deep behind mounting surface.

Net weight shall be 19 lb (8.6 kg). Shipping weight shall be 22 lb (10.0 kg)

The amplifier shall be designated the Crown DSi 4000.



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